

152582

Tuesday, November 01, 2016 9:53:59 AM

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 11/1/2016 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 11/9/2016 **Req'd Qty:** 2.00 ***~***

Customer:

Approvals:

Process Plan:

Date: 16/1/01

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 152582

Tuesday, November 01, 2016 9:53:59 AM

152582

Page 2

Item ID: D120-639-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: OEM Replacement Wearplate (s/n 1001 thru 1390)

Start Date: 11/1/2016 Start Qty: 2.00 ***2***

Cust Item ID:

Required Date: 11/9/2016 Req'd Qty: 2.00 ***2***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	QC4- 100% Inspect kits for completeness	0.00							
110						2x	DAS 28 9-89	NOV 17 2016	
QC	Memo	0.01							
Quality Control									
120	Packaging	0.00							
120						2x	DAS 28 9-89	DAS 27 9-89	NOV 17 2016
Packaging	Memo	0.00							
Packaging	Package and Identify as per PFP D120-639-011								
130	QC21- Final Inspection - Work Order Release	0.00							
130							DAS 21 9-89	NOV 17 2016	
QC	Memo	0.03							
Quality Control							DAS 21 9-89	NOV 17 2016	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, November 01, 2016 9:54:06 AM

Page 1

Work Order ID: 152582

152582

Parent Item: D120-639-011

D120-639-011

Parent Item Name: OEM Replacement Wearplate (s/n 1001 thru 1390)

Start Date: 11/1/2016

Required Date: 11/9/2016

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP D 02.09.13 Re-format, Added MS27130-S30 KJ

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2746 *D2746* Wearplate		Manufactured	No			105	Each	0.0000	1	2		NOV 04 2016	DAS 27 6 9-89
D2656-31 *D2656-31* Wearplate		Manufactured	No			105	Each	2.0000	1	2		NOV 04 2016	DAS 27 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST602			2					
					115771			2					
D2656-13 *D2656-13* Wearplate Fwd		Manufactured	No			105	Each	1.0000	1	2		NOV 04 2016	DAS 27 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST602			1					
					138230			1					
ALS7-1032-130 *ALS7-1032-130* Rivnut	AELS8-1032-130	Purchased	No			105	Each	343.0000	36	72		NOV 04 2016	DAS 27 6 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					FG			50					
					M128649			50					
					FP001			293					
					M128649			293					

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, November 01, 2016 9:54:06 AM

Page 2

Work Order ID: 152582

152582

Parent Item: D120-639-011

D120-639-011

Parent Item Name: OEM Replacement Wearplate (s/n 1001 thru 1390)

Start Date: 11/1/2016

Required Date: 11/9/2016

Start Qty: 2.00

Required Qty: 2.00

D2648-3

Manufactured No

105

Each

7.0000

5 10

D2648-3

Wearpad

**

7 X 152230

NOV 04 2016

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

FG

3

85490

3

ST009

4

141016

1

152162

3

MS27039-1-08

Purchased

No

105

Each

278.0000

40 80

MS27039-1-08

Screw

**

NOV 04 2016

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

FP001

16

m128636

16

GA

89

m128636

89

ST281

173

m135864

173

NAS1149D0332J

Purchased

No

105

Each

936.0000

40 80

NAS1149D0332.J

Washer

**

NOV 04 2016

DAS 27
6 9-89

DAS 28
9-89

Location

Loc Qty

Loc Code

FP001

182

m134848

182

GA

204

m134848

204

ST264

550

m135672

550

Tuesday, November 01, 2016 9:54:06 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, November 01, 2016 9:54:06 AM

Page 3

Work Order ID: 152582

152582

Parent Item: D120-639-011

D120-639-011

Parent Item Name: OEM Replacement Wearplate (s/n 1001 thru 1390)

Start Date: 11/1/2016

Required Date: 11/9/2016

Start Qty: 2.00

Required Qty: 2.00

MS27130-S30

Purchased

No

105

Each

41.0000

4

8

MS27130-S30

NOV 04 2016

Insert

DAS
27
69-89
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST276

41

100154

41

8

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 152582

Friday, November 04, 2016 9:14:23 AM

152582

Page 1

Item ID: D120-639-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: OEM Replacement Wearplate (s/n 1001 thru 1390)

Start Date: 11/1/2016 Start Qty: 2.00 ***2***

Cust Item ID:

Required Date: 11/9/2016 Req'd Qty: 2.00 ***2***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

DSI 9223

Rev A

IIN-D120-639

Rev A

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and type labels per PPP D120-639-011 CHG 002

DAS
21
9-88

NOV 04 2016



105

Pick Kit

0.00

105

Packaging

Memo

0.00

Packaging





DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. DSI 9223	REV. A SHEET 1 OF 1
DATE 01.11.19		TITLE WEARPLATE INSERTS	SCALE NTS
A	01.11.19	NEW ISSUE	

DART SERVICE INSTRUCTION
TO AMEND INSTALLATION INSTRUCTIONS
IIN-D120-639 Rev. A
REF. CANADIAN STC SH01-25
FAA STC: SR01347NY

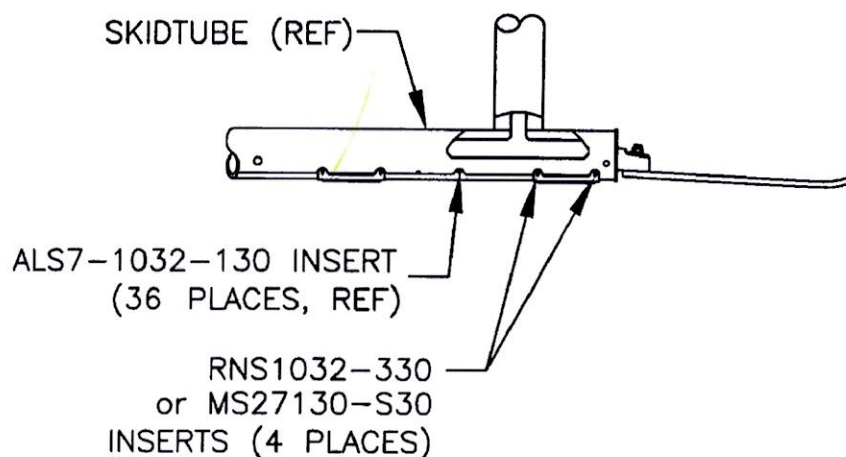
REPLACE (4) AFTMOST ALS7-1032-130 INSERTS WITH (4) RNS1032-330 / MS27130-S30 INSERTS.
UPDATE PARTS LIST AS FOLLOWS:

REPLACE:

QTY -011	QTY -013	Part Number	Description
40	40	ALS7-1032-130	INSERT

WITH:

QTY -011	QTY -013	Part Number	Description
36	36	ALS7-1032-130	INSERT
4	4	RNS1032-330 or MS27130-S30	INSERT



NOTE: OPEN HOLES TO $\phi 0.250$ INSTEAD
OF $\phi 0.297$ FOR THESE 4 INSERTS

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
APPROVED BY: D. SHEPHERD (DE # 02)	
DATE:	NOV 19, 2001
CERT. NO.:	SH01-25
ISSUE NO.:	1

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REFERENCE ONLY**4.0 WEIGHT AND BALANCE**

The following weight and balance information is for the Dart wearplate kits that are being installed. The weight and balance of any wearplates that are being removed from the aircraft is the responsibility of the installer.

Installation	Weight	LONGITUDINAL		LATERAL	
		Arm	Moment	Arm	Moment
D120-639-011 TUNGSTEN CARBIDE WEARPLATE KIT	3.1 lb 1.4 kg	136.0 in 3.45 m	422 in lb 4.8 m kg	±40.7 in ±1.04 m	±126 in lb ±1.5 m kg
D120-639-013 SURFACITE™ WEARPLATE KIT	4.1 lb 1.8 kg	136.0 in 3.45 m	558 in lb 6.2 m kg	±40.7 in ±1.04 m	±167 in lb ±1.9 m kg

5.0 PARTS LIST

Qty -011	Qty -013	Part Number	Description
X		D120-639-011	TUNGSTEN CARBIDE WEARPLATE KIT
	X	D120-639-013	SURFACITE™ WEARPLATE KIT
1	1	D2746	WEARPLATE
1	1	D2656-31	WEARPLATE
1	1	D2656-13	WEARPLATE
5		D2648-3	WEARPAD
	5	D2648-7	WEARPAD
40	40	ALS7-1032-130 or AKS7-1032-130 or ALS4-1032-130 or AKS4-1032-130	INSERT
40	40	MS27039-1-08	SCREW
40	40	AN960JD10L	WASHER

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Revision: **A**
Date: 00.12.11